

Annual Report of the Connecticut Commission for Educational Technology

Calendar Year 2022

Submitted in Accordance with CGS § 61a, Sec. 4d-80(c)(8)

Hartford, Connecticut February 22, 2023



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2022 Year in Review

The return to consistent, in-person learning in 2022 has elicited a sense of gratitude among students, families, teachers, and administrators. Fully remote learning, and the shifts in instruction and operations it necessitated, has ended. In most educational settings, normalcy has returned, even as schools and universities assess and work to accelerate learning that may have slowed during the pandemic, especially among specific student populations.

The chaotic experience of supporting education during the pandemic, along with the historic technology investments to support learning have led to a key concern at the close of 2022: how to sustain investments in digital learning tools and resources with the forthcoming "funding cliff" that looms with the end of pandemic aid programs. Relief funds have made possible a multitude of one-time digital learning programs, any one of which would have been considered a seminal investment in years past. This report highlights those investments in providing access to high-quality learning materials (page 14), district strategic planning (page 15), educator training (page 15), digital equity (page 17), and educational software to support personalized learning (page 18).

These advances represent an inflection point, with Connecticut institutions of learning never better equipped to leverage technology. The vast availability of devices, broadband, software, and support provide the essential conditions to support learning in and out of the classroom. To ensure sustainability and fidelity in learning, the Commission issued a resolution outlining key steps necessary to ensuring the full return on technology for learning (page 13).

The resolution will serve as the departure point for the development in 2023 of the next State Education Technology Plan. That framework will address the concerns highlighted in the resolution, including leadership commitment, access to technology infrastructure, digital literacy skills, and ongoing support for educators. The Commission's complementary work in 2023 to develop the State Digital Equity Plan (page 16) will address many of these same concerns — with the common goal of equity — to ensure that all residents can benefit from the employment, healthcare, learning, and social benefits that technology access and skills afford.

Planning and bringing about sustained improvements in education through technology cannot happen through one organization alone. In the design and implementation of the State Education Technology and Digital Equity Plans, the Commission will engage with state and local leaders for input and insights, as well as commitments to help make these plans a reality.



16,000 Educators

More than 16,000 teachers and professors use www.GoOpenCT.org, the Commission's open education resources site, to write, curate, and share free, high-quality digital learning materials.

→ See Open Education Resources, page 15

177 Materials

In 2022, <u>www.GoOpenCT.org</u> provided the platform for the CSDE to create and publish 177 courses, units, and other learning materials to provide statewide curriculum for all schools

→ See Open Education Resources, page 15

17,000 Hours

Through the AccelerateCT program in partnership with ISTE, 1,147 educators have benefitted from more than 17,000 hours of professional development toward certifications in the use of digital learning tools and pedagogies.

→ See <u>ISTE Training</u>, page 15

13% Disconnected

In the coming year, the Commission will work with state and local leaders as well as residents to develop a State Digital Equity Plan that helps ensure affordable Internet access to the estimated 13 percent of households not connected to high-speed broadband.

→ See <u>State Digital Equity Plan</u>, page 16



28% Increase

2022 saw a 28 percent increase in the number of unique digital learning tools (6,400) used by districts, which leverage the free set of LearnPlatform management tools provided through the Commission.

→ See <u>Educational Software Hub</u>, page 20

\$5M⁺ Cost Avoidance

Since its 2017 launch, the Commission's Educational Software Hub has saved districts an estimated 40,000 hours in staff time — in addition to legal fees — to comply with Connecticut's data privacy law. The Hub helps schools leverage innovative technology solutions and comply with state statute.

→ See <u>Technology Management</u>, page 19

\$40M⁺ Savings

The Connecticut State Library continues to deliver exceptional value through researchIT, the digital library free to all Connecticut residents. This service delivered \$42M in digital content subscriptions at a cost to the state of \$1.5M.

→ See researchIT CT, page 26

\$30M Cost Avoidance

The CEN delivers Internet connections, federally mandated content filtering, and cyber protection services to schools, colleges, libraries, towns, and open access members at a cost that saved these institutions more than \$30M this year alone.



Background

The Connecticut Commission for Educational Technology ("the Commission") was established in 2000 by Public Act 00-187 to serve as the State's principal educational technology policy advisor. This document summarizes the Commission's progress in attaining its statewide technology goals during the past calendar year, in accordance with its governing statute (CGS § 4d-80). The report serves to inform and provide recommendations to the joint standing committee of the General Assembly having cognizance of matters relating to education, appropriations, and the budgets of state agencies; the State Board of Education; and the Board of Governors of Higher Education. Readers accessing this report online may use the embedded links to view minutes, watch recorded meetings, and review publications.

Membership

| 111 = 1111 = 1111 | |
|---|--|
| Name and Position | Representing or Appointed By |
| Mark Raymond, CIO, Commission Chair | Department of Administrative Services |
| Michael Mundrane, UCONN Vice Provost and CIO, Commission Vice-Chair | University of Connecticut |
| Douglas Casey, Executive Director | Commission for Educational Technology |
| Colleen Bailie, Director, West Haven Public Library | CT Library Association |
| Nick Caruso, Senior Staff Associate | CT Association of Boards of Education |
| Burt Cohen, Staff Attorney, State Broadband Policy and Program Coordinator | Office of Consumer Counsel |
| Charles Dumais, Executive Director, Cooperative Educational Services | Office of the Governor |
| Tom Dillon | Minority Leader of the House |
| John Elsesser, Town Manager, Town of Coventry | CT Council of Small Towns |
| [VACANT] | Speaker of the House |
| Ajit Gopalakrishnan, Chief Performance Officer | CT State Department of Education |
| David Hayes, Elementary Teacher, Bristol Public Schools | American Federation of Teachers – Connecticut |
| Barbara Johnson, Library Media Specialist, Colchester Public Schools | CT Educators Computer Association |
| Rich Mavrogeanes, President, Discover Video | President Pro Tem of the Senate |
| Maura Provencher, Vice President of Research and Administration | CT Conference of Independent Colleges |
| Deborah Schander, State Librarian | CT State Library |
| Josh Smith, Superintendent, Region 15 Public Schools | CT Association of Public School Superintendents |



| Name and Position | Representing or Appointed By |
|---|--|
| Bart Stanco, Vice President, Gartner | Office of the Governor |
| Ryan Aylesworth, Town Manager, Town of Mansfield | CT Conference of Municipalities |
| [VACANT] | Minority Leader of the Senate |
| Chinma Uche, Math and Computer Science Teacher, CREC Academy of Aerospace and Engineering | Connecticut Education Association |
| Kelli-Marie Vallieres, Executive Director, Office of Workforce Strategy | Department of Economic and Community Development |
| Holly Williams, Section Director, Education and Workforce Development | Office of Policy and Management |
| Scott Zak, Senior Director of Learning Technologies | Connecticut State Colleges and Universities |

In June, the Commission welcomed Ryan Aylesworth, Town Manager of Mansfield, as the appointee form the Connecticut Conference of Municipalities. Vacancies exist for appointees by the Speaker of the House and Minority Leader of the Senate of the Connecticut General Assembly. Commission leadership continue to engage with the appointing bodies to ensure full representation.

Leadership

Mark Raymond, the Chief Information Officer for the State, continues his service as Chair of the Commission. Michael Mundrane, the University of Connecticut's Chief Information Officer and Vice Provost, serves as the Commission's Vice-Chair. Douglas Casey serves as the Commission's Executive Director, with responsibility for planning and activities as described on the Web sites of the Connecticut General Assembly (Chapter 61a) and Commission (www.CT.gov/CTEdTech). In several of its 2022 meetings, members called for the appropriation of funds for an additional staff member, given the Commission's expanded work and impact over the past two years, as well as the likely benefits to the state that person would provide.

In addition to its members, the Commission benefits from the insights of Advisory Council members. Ten Commission members and alternates as well as nearly 40 subject matter experts from across the state serve on these Advisory Councils, representing a broad diversity of constituents to help guide the Commission's priorities and programs. The list of Advisory Council members follows:



Digital Learning Advisory Council

- Nick Caruso (Chair)* Senior Staff Associate for Field Service, Connecticut Association of Boards of Education (CABE)
- Katie Bauer Director of Library Research Services & Collections, Trinity College
- Kevin Corcoran Executive Director of Digital Learning, Connecticut State Colleges and Universities
- Jonathan Costa Assistant Executive Director, EdAdvance
- Larry Covino Director, Bristol Adult Education
- Andy DePalma Director of Technology, EASTCONN
- Josh Elliott Director of Educational Technology, Fairfield University Graduate School of Education and Allied Professions
- Barbara Johnson* Library Media Specialist, Colchester Public Schools
- Dawn La Valle* Director, Division of Library Development, Connecticut State Library
- Greg Mcverry Professor, Southern Connecticut State University
- James Mindek Director of Technology & Operations, Connecticut Technical High School System (CTECS)
- Josh Smith* Superintendent, Region 15 Public Schools
- Karen Skudlarek IT Accessibility Coordinator, University of Connecticut
- Jim Spafford Coordinator of Business Services and Partnerships, Manchester Adult Education
- Chinma Uche* Computer Science Teacher, CREC Academy of Aerospace and Engineering
- Scott Zak* Senior Director of Learning Technologies, CT State Colleges and Universities

Infrastructure Advisory Council

- Tom Dillon (Chair)*
- Colleen Bailie* Library Director, West Haven Public Library
- Joe Campbell Educational Technology Consultant, CTECS
- George Claffey CIO, Central Connecticut State University
- Burt Cohen* Staff Attorney and State Broadband Policy and Program Coordinator, Office of Consumer Counsel
- Kerri Kearney Supervisor of Instructional Technology, Manchester Public Schools
- Ryan Kocsondy Director, Connecticut Education Network (CEN)
- Michael Mundrane* Vice Provost and CIO, University of Connecticut
- Sabina Sitaru Associate Director Innovation Product Manager, Pratt & Whitney
- Rick Widlansky System Manager, Libraries Online (LION)
- Rob Wilson Director of Technology and Information Services, Somers Public Schools

^{*}Also serves as a Commission member or alternate.



Meetings

Dates and topics of Commission and Advisory Council meetings appear below, with minutes and materials available from the Commission Web site, www.CT.gov/EdTech.

Commission Meetings

| Commission Meetings | |
|---------------------------------------|--|
| Monday, March 7 | |
| Streamlined Data Privacy | Measuring K – 12 Digital Equity |
| Compliance | Expansion of Community Wireless |
| | |
| Meeting Minutes | |
| Monday, June 6 | |
| Ongoing Support for Digital Learning | Eduroam in Public Spaces |
| Open Education Resources | |
| | |
| Meeting Minutes | |
| Monday, September 12 | |
| State Digital Equity Plan | Federal Broadband Expansion Programs |
| Supports for District Strategic Plans | (BEAD and Digital Equity) |
| | |
| Meeting Minutes | □ <u>Video Archive</u> |
| Manday Dacambar F | |
| Monday, December 5 | Aulian Claus In Consent Divital Lancius |
| Digital Equity Summit | Action Steps to Support Digital Learning |
| Computer Science Education | |
| A Acating Minutes | □ Video Archive |
| Meeting Minutes | TIGGO / (ICHIVC |



Advisory Council Meetings

| Digital Learning Advisory Council | |
|--|--|
| Thursday, February 3 | |
| Digital Literacy Supports for Adults | Use of Personal Devices for Learning |
| Meeting Minutes | |
| Thursday, April 28 | |
| Commission Recommendations | Digital Inclusion |
| Meeting Minutes | |
| Tuesday, July 26 | |
| Resolution on Digital Learning | Federal Digital Equity Funding |
| Meeting Minutes | |
| Wednesday, November 2 | |
| Action Steps to Support Digital Learning | |
| Meeting Minutes | |
| | |

Infrastructure Advisory Council Tuesday, February 1 Collection of Digital Divide Data Community Wireless Meeting Minutes Meeting Minutes Community Wireless Program Requirements State Digital Inclusion Program Meeting Minutes Tuesday, August 2 Community Wireless Program Design Federal Digital Equity Funding Meeting Minutes Wednesday, November 2 Action Steps to Support Digital Learning Meeting Minutes





State Educational Technology Goals and Plan

In 2017, the Commission released its five-year <u>State Educational Technology Goals and Plan</u>, with the following Vision Statement:

THAT EVERY LEARNER AND EDUCATOR IN CONNECTICUT BENEFITS FROM THE FULL POTENTIAL OF TECHNOLOGY TO SUPPORT PERSONALIZED AND IMPACTFUL TEACHING, LEARNING, RESEARCH, AND ADVANCEMENT.

To support that vision, the following Mission Statement defines the strategies and activities of the Commission:

DESIGN, STEWARD, AND PROMOTE POLICY, PROGRAMS, INSIGHTS, AND RESOURCES THAT SUPPORT THE EFFECTIVE USE OF TECHNOLOGY FOR ALL LEARNERS AND EDUCATIONAL ORGANIZATIONS IN CONNECTICUT.

In the past year, the Commission has stewarded, promoted, and enlisted assistance to deliver upon the initiatives defined in the Goals and Plan. That blueprint for educational technology in our state addresses eight broad initiatives falling under three focus areas: Digital Learning, Infrastructure, and Data and Privacy.

Digital Learning

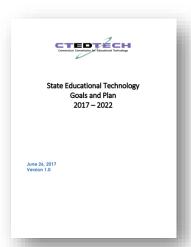
Open Education Resources Student-Centered Learning Technology Proficiency Standards

Infrastructure

Digital Equity
Educational Technology Standards and Best Practices
E-rate Maximization

Data and Privacy

Privacy Best Practices Privacy Compliance



In 2023, the Commission will engage in developing the next iteration of the State Educational Technology Plan. This work began in 2022, driven by priorities expressed by Commission and Advisory Council members that became the June 2022 <u>Resolution</u> Concerning Ongoing Support for Digital Learning.

At all quarterly meetings, Director Casey provides members with an update on progress made against the Goals and Plan, reflecting the insights and efforts of the Commission members, Advisory Council members, and other subject-matter experts enlisted to support this work. The following page provides a high-level summary of these efforts.



State Educational Technology Goals and Plan: Objectives and Progress

| State Educational Technology Goals and Plan: Object | lives and Progress |
|---|---------------------------------------|
| Objective | Status |
| Digital Learning | |
| Open Education Resources | |
| Obtain GoOpen Status | Completed (June 2017) |
| Launch OER Resource Page | Completed (May 2019) |
| Launch State OER Portal (GoOpenCT.org) | Completed (July 2021) |
| "Frontiers in Personalized Learning" Report | Completed (November 2017) |
| | |
| Student, Teacher, and Administrator Standards | |
| Commission Endorsement of Student Standards | Completed (September 2016) |
| Commission Endorsement of Teacher Standards | Completed (September 2017) |
| State Board Adoption of Student Standards | Completed (June 2018) |
| Commission Endorsement of Administrator Standards | Completed (December 2018) |
| Curation of Educator and Leader Supports | In Progress and Ongoing |
| | |
| Infrastructure | |
| E-rate Maximization | |
| Statewide Survey Design and Feedback | Completed (July 2018) |
| Statewide E-rate Report | Completed (April 2019) |
| Digital Equity | |
| Digital Equity Toolkit | Completed (December 2018) |
| | · · · · · · · · · · · · · · · · · · · |
| State Digital Equity Plan | In Progress (Fall 2023) |
| Data and Privacy | |
| Educational Software Hub Design and Launch | Completed (August 2017) |
| Promotion of Privacy and Security Best Practices | In Progress and Ongoing |



The following sections provide updates on the Commission's State Educational Technology Goals and Plan, as well as other related activities to ensure the effective use of technology in Connecticut schools, libraries, and institutions of higher education.

Digital Learning

Support for Digital Learning

The Commission dedicated significant effort in 2022 to ensure students and teachers have ongoing access to digital learning resources. What began as a statewide <u>survey and analysis</u> last year — asking the simple question, ""What about school during the pandemic is worth keeping as we return to in-person education?" — emerged in 2022 as a broader set of priorities for educational technology.

Progress in student device and broadband access as a result of relief funding, as well as the 50 percent increase in educational software use, reflect a significantly larger technology "footprint" to help ensure equitable access to personalized learning for all students. Under the leadership of Digital Learning Advisory Council chair Nick Caruso, members of that group expressed a need for sustained financial, policy, and operational supports around these essential conditions for learning, in addition to proper levels of teacher training and support.

The result of these discussions took the form of a "<u>Resolution Concerning Ongoing Support for Digital Learning in Connecticut Public Schools</u>," adopted at the June 6, 2022 full Commission meeting. The document calls for inter-agency efforts to address ongoing commitments in four categories:

- Leadership Commitment: State and local leadership to maximize the potential of technology to support learning.
- Essential Conditions for Digital Learning: Ongoing provision of the necessary devices, broadband, and technical support for teaching and learning.
- Digital Equity: Assurance that students develop the competencies and mindsets to leverage and learn new technologies for learning.
- Educator Supports: Provision of ongoing and timely training for teachers that enables them to make effective use of technology for instruction.

In 2023, the Commission will continue building on the components within the Resolution and listed in the Potential Action Steps (December 2022) to draft the next version of the Connecticut State Educational Technology Plan. Key in this work will be encouraging input and engagement from a wide array of stakeholders, including all of the Commission's appointing agencies and organizations. Only through this sense of shared ownership and involvement can the State realize the potential benefits of technology for learning.





National Recognition

The Commission's work to champion digital learning best practices and investments has garnered national attention over the past year (see the <u>Media Coverage</u> section beginning on page 23). On September 7, the State Educational Technology Directors Association (SETDA) released its first <u>State EdTech Trends Report</u>. The findings reflect the top concerns and recommendations of digital learning experts from all 50 states. <u>The report</u> lauds the work of the Commission and its structure as a model for providing consistent ed tech leadership at the state level.

Remote Learning Commission

As in 2021, Director Casey served on the statewide Remote Learning Commission. The General Assembly charged the CSDE to create this group in the 2021 legislative session (see Public Act 21-2). The 15 appointed members and CSDE staff began work late in 2021 to fulfill the group's mandates of assessing the impact of remote learning on K – 12 students, establishing best practices in online learning, and determining the feasibility of a statewide remote learning school. Education Commissioner Charlene Russell-Tucker, Chief Academic Officer Irene Parisi, and Chief Performance Officer (and Commission for Educational Technology member) Ajit Gopalakrishnan led the work of the group. Director Casey served as the lead on the Research and Design subcommittee, providing input to the final Remote Learning Commission Report, issued in November 2022. Among other recommendations, the report encourages further study into the real demand for dedicated statewide educators, courseware, and operational supports. The Remote Learning Commission also published the Connecticut Standards for Remote Learning Grades 9-12.

Open Education Resources

The Commission continues to champion the use of open education resources (OER), which include free digital textbooks, courses, unit plans, lesson plans,



and instructional videos. This work supports the Commission's statutory charge of "providing access for all public schools, public libraries, and libraries at institutions of higher education to a core set of online, full-text resources" [CGS § 4d-80(c)(2)(C)].

Following the launch in 2021 of Go Open CT (www.GoOpenCT.org), the State's OER portal, this past year saw a significant expansion in the site's use and application for teaching and learning. The site has grown to include more than 9,000 textbooks, courses, units of study, and lessons available for Connecticut educators. Site visitation remains strong, with 16,389 unique visitors, 86 percent of whom used the site multiple times across a total of 23,158 sessions, accessing 88,561 pages of content.

The Commission continues to partner with the CSDE to support access to high-quality instructional materials. In April, Governor Lamont and Education Commissioner Russell-Tucker hosted an event to <u>announce a wave of statewide curriculum</u> — financial literacy and middle school mathematics — via Go Open CT. These courses follow the release of last year's <u>African-American</u>, <u>Black</u>, <u>Puerto Rican</u>, <u>and Latino Studies</u> course, and the CSDE plans to build additional courses on Go Open CT in 2023.



In higher education, a number of colleges and universities use the platform to help lower the cost of education for students and encourage research and collaboration among professors. To support OER adoption, Director Casey met with leaders from Eastern Connecticut State University, Southern Connecticut State University, and the Connecticut OER Coordinating Council. He also worked closely with Kevin Corcoran, Associate Vice President of Digital Learning with the Connecticut State Colleges and Universities (CSCU) on the CSCU's Standards of Use to guide systemwide OER adoption.

Educator and Leader Supports

Future Ready Schools

The shift from traditional teaching approaches to those that fully leverage technology requires a commitment by and equipping of leaders. For these reasons, the Commission worked with Future Ready Schools (FRS) to offer intensive training for school leaders. Teams from 14 K – 12 districts joined the first Connecticut FRS cohort, working together to develop of strategic plans that leverage technology for teaching and learning. The FRS framework — a logical structure and interactive portal for group collaboration —includes curriculum, instruction, professional development, privacy, and other essential components of district strategic plans. Participants expressed strong enthusiasm for the program, underscoring its value in enhancing many aspects of teaching and school operations. Readers of this report can hear firsthand about the benefits of the program by visiting https://youtu.be/ydyDoD5ONSk.

ISTE Training

In 2021, the CSDE leveraged its \$100M ARPA allocation to launch a set of initiatives known as AccelerateCT, which included investments in teacher training. Chief Performance Officer and Commission member Ajit Gopalakrishnan led the design of AccelerateCT's technology components, working closely with Director Casey. The plan included training and certification for teachers to make effective use of technology through a partnership with the International Society for Technology in Education (ISTE). As with the FRS initiative, enlisting district leaders helped to increase participation and completion of courses by teachers and librarians. At the conclusion of the two-year initiative, 1,147 educators across 25 districts had completed more than 17,000 hours of professional development. Offerings included a virtual Summer Learning Academy, full-length courses on a variety of topics, and certifications for educators and librarians. In the voice of one participating teacher, "After 29 years of teaching there are very few professional developments that bring excitement back into teaching. Redesigning my lessons over the summer so they have true meaning and purpose has done just that."



Infrastructure

Digital Equity

The passage in early 2022 of the <u>Bipartisan Infrastructure Law</u> (BIL) has resulted in unprecedented levels of funding for the buildout of Internet service to under- and unreached areas within the state and for programs that help residents get online and develop digital literacy skills. These resources will support the Commission's statutory charge to help close the digital equity gap (see CGS § 61a, Sec. 4d-80).

State Digital Equity Plan

In the spring of 2022, the Office of Governor Lamont designated the Commission to lead the state's work in support of the <u>Digital Equity Act Program</u>, part of the Bipartisan Infrastructure Law (BIL). The U.S. Department of Commerce's National Telecommunications and Information Administration (NTIA) administers the program, which includes planning, capacity, and competitive grants. All support the provision of affordable, high-speed broadband and devices as well as support for residents to acquire the skills they need to engage in today's digital society. In July, Director Casey submitted the Commission's state application for planning funding, which the NTIA approved in late November, providing \$736,568 to develop a five-year state digital equity plan, with these elements:

- Purpose: To ensure all residents can engage in today's digital world for learning, civic engagement, telehealth, remote work, career advancement, tapping State services, and deepening social connections
- Covered Populations: A focus on the needs of priority groups that include lowincome households, aging populations, incarcerated individuals, veterans, people with disabilities, people with language barriers, racial and ethnic minorities, and rural residents
- Barriers: Assessment and design of programs that address the financial, logistical, and other barriers to technology access, adoption, and use
- Assets: Inventory of existing programs that address the above barriers, including broadband adoption, affordable devices, training, and support
- State Plans: Alignment with strategic state plans that address economic and workforce development, educational outcomes, health outcomes, civic and social engagement, the delivery of essential services

The Commission will design the plan based on input through in-person engagements, consultation with state and community leaders, and formal research. In October, the Commission invited more than 250 leaders from State agencies and the General Assembly as well as state and regional leadership organizations to enlist their input on barriers, assets, and what a fully connected and skilled citizenry would mean.

Key partners in this work include the Department of Energy and Environmental Protection (DEEP) Bureau of Energy and Technology Policy, which oversees the Broadband Equity, Access, and Deployment (BEAD) program, also part of the BIL; the Office of Consumer



Counsel; the Office of Policy and Management; the Connecticut State Library; the State Bipartisan Infrastructure Law Team; and the Office of the Governor. Director Casey has enlisted a smaller group of digital equity experts to serve on a core planning team of advisors and has forged a partnership with the University of Connecticut's School of Public Policy to conduct research and a needs assessment. State and community leaders interested in learning more about and contributing to the State's Digital Equity efforts can visit www.CT.gov/DigitalEquity.

Digital Navigation

One model for ensuring access to the technology and skills to engage in today's online society is known as "digital navigation." According to the National Digital Inclusion Alliance, which facilitated the fall 2022 Digital Equity Summit, digital navigators are "trusted guides who assist community members in Internet adoption and the use of computing devices. Digital navigation services include ongoing assistance with affordable Internet access, device acquisition, technical skills, and application support." In 2022, the Connecticut State Library provided exemplary leadership in the practice of digital navigation through its Libraries and Partners for Digital Equity program. Funded through an Institute for Museum and Library Studies grant, the program allowed four Connecticut libraries to provide devices, training, and support for residents to gain fluency in digital tools. As a Commission member, the Connecticut State Library has modeled the type of program that the federal Digital Equity program serves to establish and fund.

Community Wireless

In addition to personal broadband connections, devices, and training, another means of ensuring access for all residents comes in the form of the <u>Community Wireless program</u>. In 2020, Governor Lamont authorized CEN to install high-capacity wireless access points at community anchor institutions (mostly libraries) across the state. Following the initial phase, with 170 installations, the Governor included an additional \$10M investment to expand the program through his American Rescue Plan allocations for the state.

In 2022, Infrastructure Advisory Council chair Tom Dillon facilitated discussions around program design to help ensure the greatest impact from the next round of funding investments (see, for example, the <u>August 22 meeting minutes</u>). The program would solicit proposals from local communities to expand broadband access through anchor institutions, high-density public spaces, and public or subsidized housing. Advisory council members provided sound guidance around the scope of expenditures, in-kind requirements, sustainability, and assurances such as the inclusion of Eduroam authentication via wireless access points. Following the approval of these funds (in review with the U.S. Department of Treasury as of this writing), CEN with oversight from the Commission will complete program design and begin welcoming applications for funding.

Broadband Programs and Advocacy

As mentioned above, the Commission continues to work closely with other State agencies to ensure a coordinated and efficient investment of federal funding to expand access to



technology for all residents. The <u>2022 Connecticut Broadband Report</u>, written by DEEP with input from the Commission and other State agencies, provides an excellent summary of progress and plans to expand technology access and provides details on some of the programs listed below:

- <u>Broadband Equity, Access, and Deployment (BEAD)</u>: DEEP leads this program to expand high-speed Internet access to under-connected and disconnected areas.
- Broadband Mapping: OPM leads these efforts, funded through the 2021 Broadband Bill (<u>Public Act 21-159</u>). The recently launched <u>BroadbandMaps.CT.gov</u> provides interactive views of the state with layers that detail Internet access, affordability, and adoption.
- <u>Enabling Middle Mile Broadband Infrastructure Program</u>: CEN has applied for funding under this program, designed to expand middle mile infrastructure and reduce the cost of connecting unserved and underserved areas.

Under the direction of the Office of Governor Lamont, State agencies continue to work in close coordination across programs to maximize the impact of federal awards. Updates on progress appear on the interagency site <u>Broadband.CT.gov</u>, launched in late 2022 with input from all participating agencies and under the coordination of Director Casey.

Data and Privacy

Given the significant expansion of broadband, devices, and educational software during the COVID-19 pandemic, the Commission remains committed to helping schools manage and optimize the use of these digital learning tools while ensuring the privacy of personal data. One national study of nearly 3 million students indicates that the average school district uses more than 1,400 titles during a given year (LearnPlatform, November 2022). In Connecticut, usage data from 37,154 educators and 193,221 students shows a total of 6,463 software products in use across 71 districts. The total educational software "footprint" is likely much larger than this total, and these numbers serve as reminders of the need to ensure the protection of student information as schools continue to leverage technology for personalized learning.

Guidance and Compliance Efficiencies

The Commission has offered free of charge <u>LearnPlatform</u> since 2017 as a clearinghouse of educational titles from providers that have pledged compliance with Connecticut's data privacy law. Given ambiguities in State statute (<u>CGS §§ 10-234aa-dd</u>), questions remained — among other considerations — as to what constitutes "compliance" with the law.

In February, Director Casey consulted with DAS Counsel and the Office of the Attorney General to develop guidance for school districts. The resulting list of <u>frequently asked questions</u> and <u>recorded presentation</u> make clear that educational providers that digitally sign the Connecticut Student Data Privacy Pledge via LearnPlatform assume the conditions of the State statute. The guidance also addresses penalties for non-compliance under the



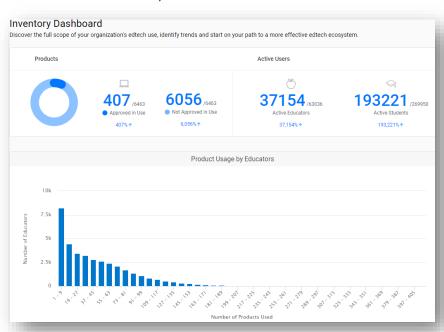
<u>Connecticut Unfair Trade Practices Act</u> (CUTPA) and makes it clear that districts do not need to pursue individualized agreements with each of their providers.

These clarifications should continue saving time for school leaders and teachers while reducing data privacy exposure. District survey responses indicate that use of LearnPlatform and the Commission's guidance save a collective 10,000 staff hours (\$1M indirect) annually in education technology management and compliance efforts. Overall usage of LearnPlatform increased by 8 percent during the past year.

Education Technology Management

The Commission's statewide subscription to LearnPlatform allows any school or district to access a real-time inventory of software titles in use. By the close of 2022, 71 districts were

using this free service. Use of this data can help decision-makers identify new software titles that support student learning as well as apps that administrators have not approved. The Inventory Dashboard can also provide insights on software that districts pay for every year but that may not see significant use. Identifying such educational technology "waste" allows leaders to consolidate their software catalog, reducing licensing and support costs.



The Commission's efforts to

support district and vendor compliance with Connecticut law has had a national and international impact. In the fall of 2022, SETDA issued a <u>special report</u> highlighting Connecticut's approach to privacy management. Director Casey remains an active contributor on the UNESCO <u>Data for Learning Working Group</u>. The Commission's efforts have informed <u>international data governance recommendations</u> through that body.

Exemption Reporting

Local education agencies (LEAs) must report each year to the Commission on their use of software that does not strictly comply with Connecticut's student data privacy law. The exemption, defined in Public Act 18-125, supports the district design of individualized education plans (IEPs) and student accommodations under Section 504 of the Rehabilitation Act of 1973. Those LEAs that use the exemption must share details about





each software title, its provider, and assurances that the district has made reasonable efforts to comply with all other aspects of state and federal privacy statute.

In December 2022, Director Casey shared the consolidated, four-year (2018 – 2022) reports of district exemption use through the Connecticut Open Data portal (https://data.ct.gov). Data sets and interactive charts allow visitors to view which districts used the exemption and if so, which software tools they used. More than half of LEAs (55 percent) did not report for the 2021 – 22 school year, despite the mandate to do so. Of those districts that did report, about 15 percent used the exemption. Percentages of non-reporting and exemption-using districts have remained consistent year over year.

These data sets do not seem to have influenced policy or statute considerations, given that the Commission has not received any feedback or questions concerning district exemption use by members of the General Assembly. Discussion has emerged among Commission members about the value of asking for this data, given the lack of responsiveness on behalf of districts and the General Assembly on the resulting reports, especially given that the statute does not require the development of these reports, only that districts share usage data with the Commission. The Commission sees some potential value in requesting the data, in that doing so annually underscores the fact that districts should consider privacy concerns as part of educational technology decision-making, especially among some of the most vulnerable student populations.



Communications and Outreach

To raise awareness of its work and gather feedback from its diverse constituents, the Commission leverages several online media channels, including the Commission Web site, Twitter account, and e-mail listserv. Director Casey continues to present at state and national events, produce research and publications, submit news to educational media outlets, and participate actively in several <u>professional and advocacy groups</u>. The following sections provide highlights of these communication and outreach efforts.

Online Media

- Web: The Commission's Web site, www.CT.gov/EdTech, continues to support the educational community. Site traffic decreased by roughly a third over the same period the previous year, likely because of the reduced demand for remote learning resources. Additions to the site this past year include data privacy updates as well as resources for school and community leaders to close the digital divide.
- <u>Twitter</u>: The Commission's Twitter account, @CTEdTech, serves as a means of communicating important research and policy updates to 669 followers.
- Statewide Listserv: In early 2016, the Commission launched a statewide e-mail listserv to share research, best practices, and announcements with the K 12 education community. Since that time, the list has grown to include more than 450 members, including school



technology leaders from nearly every Connecticut public school district and many private schools. In the past year, contributors have submitted more than 2,000 posts that include funding and legislative updates, best practices in digital learning approaches, and time-sensitive security alerts. Comments from district technology leaders indicate that the service provides an easy and powerful means of quickly communicating with and sharing best practices among members of the Connecticut educational technology community.



Presentations

Director Casey shared the Commission's work statewide and nationally in 2022. The following list summarizes these presentations.

| Organizer – Audience | Topic(s) | Date |
|--|--|--------|
| National School Boards Association | Closing the Homework Gap | Jan 24 |
| Eastern Connecticut State University | Open Education Resources (OER) | Feb 16 |
| CT State Colleges and Universities | CSCU OER Council | Apr 8 |
| Consortium for School Networking | Reading the Tea Leaves: State EdTech Policy Trend Watching | Apr 13 |
| Connecticut Conference of Independent Colleges | Go Open CT (OER) | Apr 27 |
| Connecticut Education Network (CEN) | Go Open CT, Eduroam, Teacher Preparation, and Community Wireless Sessions (CEN Conference) | May 5 |
| Office of the Governor | FiberCity (SiFi Networks) Launch Press Conference | May 17 |
| University of Massachusetts | Go Open CT (Northeast OER Summit) | May 26 |
| Interagency Council for Ending the Achievement Gap | Quarterly Presentation on Educational Technology (with Holly Williams and Stephen Hegedus) | Jun 7 |
| CT Digital Government Summit | Panel on Digital Equity | Sep 8 |
| CT Computer Science Teachers Association | Student Data Privacy | Sep 12 |
| Connecticut Library Association | State Digital Equity Plan | Sep 15 |
| American University | Guest Lecture: Trends in Online Learning | Sep 27 |
| Dxtera Institute and Georgetown University | Privacy Preserving Technologies (Al in Education Forum) | Oct 11 |
| Commission for Educational Technology | 2022 Digital Equity Summit | Oct 26 |
| Future Ready Schools | Connecticut Cohort: Panel Discussion | Nov 3 |
| Connecticut Educators Computer Association | Go Open CT (Annual CECA-CASL Conference) | Nov 4 |
| Leadership Conference Education Fund | Digital Equity Planning and Best Practices | Nov 16 |



Media Coverage

Outreach campaigns and publishing opportunities promoted the work of the Commission and resulted in coverage across a number of media channels this year. The following table lists stories, interviews, and publications that highlight the Commission's efforts and impact.

| Outlet – Publisher | Title | Date |
|---|--|--------|
| Education and Career News | Leveraging Technology for Learning, Teaching, and Beyond | Jan 3 |
| ctpost | CT education department previews permanent remote learning standards | Jan 25 |
| ENCARON HANGERT AND | What Do You Do If Your District Is Hacked? | Mar 1 |
| K-12 DIVE | White House eyes digital divide with discount for low-income families | May 10 |
| G K-12 DIVE | 3 ways to keep student data privacy top-of- mind in ed tech procurement | Jun 2 |
| EDUCATION WEEK | SETDA Issues Annual Trends Report | Jun 9 |
| the ct mirror | CT gets \$5.7 million to plan broadband deployment and adoption | Dec 13 |
| ST NEWS JUNKIE BECAUSE YOU NEED IT. BAD. | First Steps Taken in Planning For High-Speed Internet Expansion | Dec 14 |
| Hartford Courant | Connecticut gets \$5.7 million to plan broadband deployment, develop 'digital equity plan' | Dec 14 |



Professional and Advocacy Groups

To garner support for Commission initiatives, deepen understanding of constituent needs, and identify funding opportunities, Director Casey actively participates in the following state and national groups:

- Connecticut Association of Public School Superintendents (CAPSS) Technology Committee: Provide monthly Commission updates to state superintendents
- Connecticut Remote Learning Commission: Led Research and Design subcommittee to assess current online learning in Connecticut, identify best practices, and determine the feasibility of a statewide remote learning school
- Council of Chief State School Officers (CCSSO) Digital Equity Steering Committee: Engage as part of core planning team to identify and share best practices and develop guidance to state leaders on ensuring equitable access to digital learning through broadband, devices, and skill development
- ISTE Policy Advisory: Provide input on digital learning policy at the national, state, and local levels
- Skills21 Board: Support EdAdvance (one of six state Regional Education Service Centers) work to provide technology-based curriculum and challenge competitions in STEM subjects
- State Educational Technology Directors Association (SETDA) Board of Directors:
 Served as 2021 22 Chairman of the Board of national affinity group that develops and advocates for best practices in digital learning
- State Interagency Council for Ending the Achievement Gap: Represent the Department of Administrative Services in statewide efforts to align programs and resources that enable all learners to succeed
- United Nations Educational, Scientific and Cultural Organization (UNESCO)
 Broadband Commission Data for Learning Working Group: Establish international guidance and standards on the effective and ethical use of data in education
- U.S. Department of Education "Go Open" Leaders: Engage in monthly discussions to share best practices on the design and governance of state-level OER programs



Connecticut State Library

researchIT CT

As part of the Connecticut Education Network and administered by the Connecticut State Library, researchIT CT (www.researchitct.org) provides all Connecticut students, faculty, and residents with online access to essential



library and information resources. The researchIT CT service provides a core level of information resources, including secured access to licensed databases, and is available to every resident in Connecticut. These resources support the Division of Library Development's effort around the seven literacies: Digital Literacy, Health Literacy, Financial Literacy, Legal Literacy, Civic/Social Literacy, Basic Literacy, and Early Literacy. In addition, college students and faculty have access to specialized research information. The researchIT CT service also includes a collection of downloadable eAudio and eBooks for access on mobile devices such as smartphones and tablets.

Since March of 2020, The COVID-19 crisis has created access issues for many students and residents in Connecticut. In response to the pandemic and the remote learning challenges it presented, The Division of Library Development worked with database vendors to temporarily provide remote access to researchIT databases without requiring library card authentication. EBSCO created a list of temporary links that can be used by patrons and students who don't have a library card at this time. This means of access remains in effect.

Additionally, The CT State Library utilized LSTA funds to extend access to EBSCO's Learning Express Workforce Solutions including Job and Career Accelerator, for public libraries in Connecticut to run from October 1, 2022 through September 20, 2023.

Goals of researchIT CT are as follows:

- Ensure universal access to a core level of library and information resources for every resident of Connecticut through their public library, school, and college and from home
- Provide necessary information resources to every school in Connecticut so that all students are prepared to function in an information society
- Provide information resources to the increasing number of students taking advantage of online courses at Connecticut's colleges and universities
- Support the information needs of all Connecticut residents





Budget

In the spring of 2019, the Division of Library Development coordinated a Request for Proposal (RFP) process for the databases that comprise researchIT CT. After three years of stable pricing, the resulting proposals included some price increases which pushed the cost to maintain all of the current offerings beyond the budget. After carefully evaluating usage and costs again this year, the researchIT subscription to APA PsycInfo Collection from EBSCO was canceled. Other EBSCO offerings remain the same. A three-year renewal process was completed with both EBSCO and ProQuest and keeps the current subscription in effect until June 30, 2025.

Annual Savings / Cost Avoidance (FY 2022)

The value of all researchIT CT databases to local communities exceeds \$42 million in one year, while the cost to provide those databases was \$1.3 million. This represents a cost avoidance of more than \$41 million. For more details, see the following publication:

Cost Benefit: What researchIT CT Saves the State's Libraries and Municipalities

Usage (FY 2022)

For researchIT CT's licensed full-text databases, there were a total of 3,141,381 page views (a measure of when search results are actually viewed), with 201,710 or 7% from public library patrons; 702,312 or 22% from school library patrons; and 2,237,359 or 71% from academic library patrons. The total number of page views represents a 19% decrease compared to the previous fiscal year. However, K12 usage nearly doubled over the previous year. In addition, public libraries viewed Connecticut State Library Collections in Ancestry.com 10,670,593 times in FY 2022.

findIT CT

Connecticut's statewide library catalog, findIT CT, contains the holdings of 334 libraries in Connecticut, with more libraries being added on an ongoing basis. As of January 1, 2023, findIT CT contained 25 million records and 19 million items. In FY 2022 it had more than 386,000 visits and 4.5 million page views.







requestIT CT

requestIT CT, the statewide interlibrary loan service in findIT CT, began in September 2017, and as of July 2022, 131 libraries in Connecticut participate in the service.

Librarians can easily place, update, and track the status of requests as they make their way through the interlibrary loan process. Participating libraries filled 12,212 interlibrary loan requests during FY 2022 using the fulfILLment system.



Digital Collections

The Treasures of Connecticut Libraries digital collection, which began in 2008, remains available and had 7,300 item views in FY 2022. It contains 1,869 objects from 51 libraries and their partnering institutions. The Treasures collection can be accessed at:

https://cslib.contentdm.oclc.org/digital/collection/p128501coll0

The State Library added the first issues of the Newspapers of Connecticut digital collection in 2011. This collection on the ContentDM platform includes 7,356 newspaper issues from more than 95 newspaper titles. The collection had 11,6790 item views in FY 2022 and has been moved to the Connecticut Digital Archive https://ctdigitalarchive.org/ for preservation. During FY 2022, the State Library added more newspapers to the Connecticut Digital Archive (CTDA), bringing the new total in the CTDA to 117 newspapers. In September 2018 the CTDA became a service hub for the Digital Public Library of America (https://dp.la/), so the newspapers are also discoverable through the DPLA. The Newspapers of CT collection can be accessed at:

http://hdl.handle.net/11134/30002:newspapers

eGO and the SimplyE app

eGO CT provides access to digital content such as eBooks and eAudio, making it available to users statewide primarily through an app. Patrons can easily download the app and use it to discover, check out, and read or listen to digital content, such as eBooks and eAudio. The app is designed to display content that is available in both the Connecticut State Library and local library collections.



Launched to the public in March 2022, The Palace Project App made it possible for Connecticut public library users to access eBook titles from their individual public library, from a parent regional library system, from the Palace Open Bookshelf, Palace Marketplace, and Axis 360 collection, all in one intuitive, easy-to-use mobile app for iOS or Android. As of December 2022, there are 105 public libraries that are live in the app and sharing it with their patrons. The service includes downloadable audiobooks as well as eBooks. The State Library's use of SimplyE ended in September 2022.

The eGO Community Share program was also launched in 2022. This is a new project aimed at K-12 schools as part of the eGO CT program. The goal is to allow for easier access for students to the Connecticut State Library eBook collection. The project is being accomplished with LSTA funds in partnership with Baker and Taylor. As of December 2022, there are 90 school sites participating.

Content

As of December 2022, the eAudio and eBook collection includes the following:

- Baker & Taylor Axis 360: 3,306 items
- Palace Marketplace and Biblioboard: 4,287 items
- Palace Open Bookshelf: 7,838 eBooks

Usage (FY 2022)

Because the digital collections are available through a self-service model, State Library staff have no role in the circulation process and are responsible only for collection development and licensing. Usage statistics show that there was a total of 6,039 checkouts in the Palace app, and 3,482 were from the Connecticut State Library collection.